

# MECHANISMS OF VASODILATATION

an official Satellite Symposium  
of the XXVII<sup>th</sup> International Congress  
of Physiological Sciences

July 10 - 12th, 1977

official carrier: Sabena

## Sunday, July 10 (Morning Session)

### A. INTRODUCTORY SESSION

- 8 35 a.m. *Welcome*  
P.M. VANHOUTTE (Antwerp, Belgium)
- 8 40 a.m. *Prolegomenon*  
J.T. SHEPHERD (Rochester, U.S.A.)
- 9 00 a.m. *Movér "Vasomotion in Arterioles"*  
P.C. JOHNSON (Tucson, U.S.A.)
- 9 10 a.m. *Movér "Nerve-Smooth Muscle Interaction in Culture"*  
G. BURNSTOCK (London, Great Britain)

### B. INTRINSIC FACTORS CONCERNED IN THE RELAXATION OF VASCULAR SMOOTH MUSCLE

Moderator: R. CASTEELS (Leuven, Belgium)

- 9 30 a.m. *The Contractile Apparatus of Vascular Smooth Muscle*  
A.V. SOMLYO (Philadelphia, U.S.A.)
- 9 50 a.m. *The Role of Organelles in Regulating Cytoplasmic Calcium in Vascular Smooth Muscle*  
A.P. SOMLYO (Philadelphia, U.S.A.)
- 10 10 a.m. *Control of the Actin-Myosin Interaction in Vascular Smooth Muscle*  
R.A. MURPHY (Charlottesville, U.S.A.)
- 10 30 a.m. *Coffee Break*
- 11 00 a.m. *Removal of Activator Ca<sup>++</sup>*  
D.F. BOHR (Ann Arbor, U.S.A.)
- 11 20 a.m. *Mechanics of Smooth Muscle Relaxation*  
S. JOHANSSON (Lund, Sweden)
- 11 40 a.m. *Membrane Potential and Relaxation*  
G. SIEGEL, R. ZEHALT, H. GUSTAVSSON and B. LINDMAN (Berlin, Germany)
- 12 00 a.m. *General Discussion*
- 12 40 p.m. *Lunch*

## TUESDAY, July 12th. — Morning Session

### E. LOCAL FACTORS CAUSING VASODILATATION

Moderator: I. LEUSEN (Gent, Belgium)

- 9 00 a.m. *Role of Physical Factors in Local Vascular Responses*  
H.V. SPARKS (Ann Arbor, U.S.A.)
- 9 20 a.m. *Oxygen, Hydrogen Ion, and CO<sub>2</sub> as Local Factors Causing Vasodilatation*  
B.R. DULING (Charlottesville, U.S.A.)
- 9 40 a.m. *The Mechanism of Potassium Vasodilation*  
F.J. HADDY (Bethesda, U.S.A.)
- 10 00 a.m. *Coffee Break*
- 10 20 a.m. *Vasodilation Mediated by Hyperosmolarity*  
S. MELLANDER and J. LUNDVALL (Lund, Sweden)
- 10 40 a.m. *Role of Adenosine, ATP and PO<sub>4</sub> in Resistance Vessel Vasodilation*  
R.M. BERNE (Charlottesville, U.S.A.)
- 11 00 a.m. *Adenosine and Adenine Nucleotides: Action on Vascular Smooth Muscle*  
R. VERHAEGHE (Leuven, Belgium)
- 11 20 a.m. *General Discussion*

## Sunday, July 10 (Afternoon Session)

### C. MODULATION BY LOCAL AND HUMORAL EVENTS

Moderator: Z. BACO (Liège, Belgium)

- 1 45 p.m. *Myogenic Tone in Resistance Vessels*  
P.C. JOHNSON (Tucson, U.S.A.)
- 2 00 p.m. *Metabolism and Relaxation*  
J. PETERSON (Heidelberg, Germany)
- 2 20 p.m. *Disposition of Vasoconstriction Agonists*  
W. OSSWALD (Porto, Portugal)
- 2 40 p.m. *Locally Produced Humoral Factors*  
B.T. ALTURA (Brooklyn, U.S.A.)
- 3 00 p.m. *Prostacyclin (PGI<sub>2</sub>) Vascular Wall and Vasodilatation*  
S. MONCADA and J.R. VANE (Beckenham, Great Britain)
- 3 20 p.m. *Coffee Break*
- 3 40 p.m. *Role of Endogenous Prostaglandin Biosynthesis in Determining Vascular Tone*  
P. NEEDLEMAN and P.S. KULKARNI (St. Louis, U.S.A.)
- 4 00 p.m. *Vasodilatation due to Release of Modulator Substance*  
M. SZENTIVANYI (Budapest, Hungary)
- 4 20 p.m. *Heterogeneity in the Relaxation of Vascular Smooth Muscle*  
H. TODA (Saka, Japan)
- 4 40 p.m. *General Discussion*
- 5 20 p.m. *Return to Hotel*

## TUESDAY, July 12th. — Afternoon Session

### F. NEUROGENIC VASODILATATION

Moderator: A. HERMAN (Wilrijk, Belgium)

- 1 00 p.m. *Withdrawal of Sympathetic Tone*  
F.M. ABOUD (Iowa City, U.S.A.)
- 1 20 p.m. *Ganglionic Inhibition by Dopamine and Neurogenic Vasodilatation*  
J. WILLEMS and M.G. BOGAERT (Gent, Belgium)
- 1 40 p.m. *Interference with Peripheral Adrenergic Neurotransmission*  
M.A. McGRATH and P.M. VANHOUTTE (Rochester, U.S.A. and Wilrijk, Belgium)
- 2 00 p.m. *Beta-adrenergic Receptor Mediated Vasodilation in a Blood Vessel with Intrinsic Muscle Tone*  
J.A. BEVAN, R.D. BEVAN, B.L. PEGRAM, J.L. PREHN, and R. WIKQUIST (Los Angeles, U.S.A.)
- 2 20 p.m. *Coffee Break*
- 2 40 p.m. *Histaminergic and Cholinergic Vasodilator Systems*  
M.J. BRODY (Iowa City, U.S.A.)
- 3 00 p.m. *An Assessment of Purinergic Nerve Involvement in Vasodilatation*  
G. BURNSTOCK (London, Great Britain)
- 3 20 p.m. *Immunohistochemical Demonstration of Vasodilatory Peptidergic Nerves in Gut and Brain*  
J. HANKO, C. OWMAN, L. EDVINSSON, J. FAHRENKRUG, R. HAKAMSON, L.-I. LARSSON, O. SCHAFFALITZKY DE MUCKADELL and P. SUNDLER (Lund, Sweden)
- 3 40 p.m. *General Discussion*
- 4 30 p.m. *Prospectives*  
P.M. VANHOUTTE (Wilrijk, Belgium)
- 5 00 p.m. *Return to Hotel*

## MONDAY, July 11th. — Afternoon Session

### D. THERAPEUTIC AGENTS CAUSING VASODILATATION

Moderator: T. GODFRAIND (Louvain, Belgium)

- 2 00 p.m. *Vasodilatation or Inhibition of Peripheral Vasoconstriction?*  
J.M. VAN NESTEN (Beerse, Belgium)
- 2 20 p.m. *Inhibitors of Ca Influx*  
T. GODFRAIND and M. MOREL (Louvain, Belgium)
- 2 40 p.m. *Inhibitors of Cyclic AMP Breakdown*  
J.C. STOCLET (Strasbourg, France)
- 3 00 p.m. *Nitrates, Nitroprusside, and Metabolic Inhibitors*  
V.A.W. KREYE (Heidelberg, Germany)
- 3 20 p.m. *Anesthetic Agents*  
B.M. ALTURA (Brooklyn, U.S.A.)
- 3 40 p.m. *Coffee Break*
- 4 00 p.m. *Altered Vascular Relaxation and Aging*  
B.A. BERKOWITZ (Mudry, U.S.A.)
- 4 20 p.m. *Relaxation of Vascular Smooth Muscles in Spontaneously Hypertensive Rats*  
S. SHIBATA and J.B. CHENG (Honolulu, U.S.A.)
- 4 40 p.m. *General Discussion*